

Application No. 09/607,397
Amendment "I" dated February 6, 2006
Reply to Office Action mailed October 6, 2005

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A computer system for selecting and organizing individual test cases for use in testing a computer program to ensure that the program processes as intended, the system comprising:

one or more program modules storing one or more available test cases, each comprising a set of instructions for testing a feature of the computer program through a language and format independent interface;

a harness client comprising a set of instructions that (i) receives user input specifying one or more filenames corresponding to the one or more program modules, (ii) executes a connector to scan for and discover the one or more available test cases that are stored in the one or more program modules and to organize the one or more available test cases into a test case hierarchy in which one or more test cases comprise a test suite, and in which one or more test suites comprise a test module, and (iii) receives user input indicating which of the one or more available test cases in the test case hierarchy are selected to be executed on the computer program;

a harness comprising a set of instructions that (i) receives the test case hierarchy, (ii) traverses the test case hierarchy, and (iii) executes each of the one or more available test cases that is selected to be executed on the computer program using the corresponding language and format independent interface of the selected test case to ensure that the computer program processes as intended;

a connector comprising a set of instructions that (i) scans for the one or more available test cases stored in the one or more program modules, (ii) organizes the one or more available test cases into the test case hierarchy by extracting the one or more available test cases from the one or more program modules, and (iii) selectively integrates

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an interface between the test case hierarchy and the harness regardless of the language or format in which the one or more available test cases were written; and

a processor for executing each selected test case, the harness, the harness client, and the connector.

2. (Previously Presented) A computer system as recited in claim 1, wherein the set of instructions of the harness and the set of instructions of the connector utilize an architecture that defines a means for accessing a resource over a network.

3. (Previously Presented) A computer system as recited in claim 2, wherein the architecture is COM technology.

4. (Previously Presented) In a computer system that includes a processor, a computer program to be tested, a program module storing one or more test cases of interest for use in testing the computer program, a harness for executing individual test cases on the computer program, a harness client for receiving user input, and a connector for interfacing between the one or more test cases of interest and the harness, a method for testing the computer program to determine whether the computer program processes as intended, the method comprising the acts of:

the harness client (i) receiving user input that specifies one or more filenames to identify the program module, (ii) executes the connector to scan for and discover the one or more test cases of interest that are stored in the program module and to organize the one or more test cases of interest into a test case hierarchy in which one or more test cases comprise a test suite, and in which one or more test suites comprise a test module, and (iii) receives user input indicating that the one or more test cases of interest in the test case hierarchy are to be executed on the computer program;

the connector scanning the one or more test cases of interest stored in the program module, each test case having a language and format independent interface for executing the test case on the computer program regardless of the language or format used to develop the test case;

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the connector extracting the one or more test cases of interest from the program module;

the connector organizing one or more test cases of interest into the test case hierarchy;

the connector interfacing the harness with the one or more test cases of interest, wherein the interfacing allows the harness to recognize and execute the one or more test cases of interest regardless of the language or format in which the one or more test cases of interest were developed; and

the harness traversing the test case hierarchy and executing each of the one or more test cases of interest to test the computer program.

Claims 5 – 6 (cancelled).

7. (Previously Presented) A method as recited in claim 4, wherein the method further includes the step for determining whether one or more of the test cases of interest are identified as being deselected, wherein a deselected test case is not executed on the computer program.

Claims 8 – 9 (cancelled).

10. (Previously Presented) A method as recited in claim 7, wherein upon the user selecting a test suite, the one or more test cases that comprise the test suite, excluding any test cases determined to be deselected are selected.

11. (Original) A method as recited in claim 10, wherein upon the user selecting a test module, the one or more test suites that comprise the test module, excluding any test cases determined to be deselected are selected.

12. (Previously Presented) A method as recited in claim 4, wherein the step for traversing further includes executing the one or more test cases on a thread pool comprising one or more threads.

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13. (Original) A method as recited in claim 12, wherein the step for traversing further includes copying a selected test case across all of the one or more threads, and wherein the selected test case is executed across all of the one or more threads.

14. (Previously Presented) A method as recited in claim 12, wherein the step for traversing further includes executing a selected test case on one of the threads.

15. (Previously Presented) A computer program product for implementing within a computer system a method for testing a computer program to determine whether the computer program processes as intended, the computer program product comprising:

computer readable medium for providing computer program code means utilized to implement the method, wherein the computer program code means is comprised of executable code for implementing the acts of:

receiving user input that specifies one or more filenames to identify one or more program modules storing one or more test cases of interest, each comprising a set of instructions for testing a feature of the computer program through a language and format independent interface;

executing a connector to scan for and discover the one or more test cases of interest that are stored in the program module and to organize the one or more test cases of interest into a test case hierarchy in which one or more test cases comprise a test suite, and in which one or more test suites comprise a test module;

receiving user input indicating that the one or more test cases of interest in the test case hierarchy are to be executed on the computer program;

scanning for the one or more test cases of interest that are stored in the one or more program modules;

extracting the one or more test cases of interest from the program module;

organizing the one or more test cases of interest into the test case hierarchy;

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interfacing with the one or more test cases of interest to recognize and execute the one or more test cases of interest regardless of the language or format in which the one or more test cases of interest were developed;
traversing the test case hierarchy; and
executing the one or more test cases of interest on the computer program.

16. (Original) A computer program product as recited in claim 15, wherein the step for traversing is performed by the harness.

17. (Original) A computer program product as recited in claim 15, wherein the step for interfacing is performed by one or more connectors.

Claims 18 – 19. (cancelled)

20. (Previously Presented) A computer program product as recited in claim 15, wherein the one or more test cases executed on the computer program are selected by a user through a user interface provided by a harness client.

21. (Previously Presented) A computer program product as recited in claim 20, wherein the step for traversing further includes executing the one or more selected test cases on a thread pool comprising one or more threads.

22. (Original) A computer program product as recited in claim 21, wherein the step for traversing further includes copying a selected test case across all of the one or more threads, and wherein the selected test case is executed across all of the one or more threads.

23. (Previously Presented) A computer program product as recited in claim 21, wherein the step for traversing further includes executing a selected test case on one of the threads.

24. (Previously Presented) In a computer system that includes a computer program to be tested, a program module of one or more test cases written in any format or language for

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testing the computer program, a harness for executing one test cases on the computer program, a harness client for receiving user input, and one or more connectors for interfacing test cases with the harness, a method for testing the computer program to determine whether the computer program processes as intended, the method comprising steps for:

- specifying one or more filenames for identifying one or more program modules storing one or more test cases, each comprising a set of instructions for testing a feature of the computer program through a language and format independent interface;

- identifying the one or more test cases within the one or more program modules;

- translating the identified one or more test cases into a test case hierarchy in which one or more test cases comprise a test suite, and in which one or more test suites comprise a test module;

- indicating that the one or more test cases in the test case hierarchy are to be executed on the computer program;

- providing an interface to the test case hierarchy in order to recognize and execute the one or more test cases regardless of the language or format in which the one or more test cases were written; and

- running each of the one or more test cases in the test case hierarchy to test the computer program.

25. (Original) A method as recited in claim 24, wherein the act of executing is performed on a thread pool comprising one or more threads.

26. (Previously Presented) A method as recited in claim 25, wherein the act of executing is further performed by executing a selected test case on one of the threads.

27. (Previously Presented) A method as recited in claim 25, wherein the act of executing is further performed by copying the one or more selected test cases across all of the one or more threads, and wherein the selected test case is executed across all of the one or more threads.

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28. (Previously Presented) A computing system as recited in claim 1, wherein the test module comprises a plurality of test suites.